

REMARKS/ARGUMENTS:

This paper is herewith filed in response to the Examiner's Office Action dated October 17, 2006, which rejected claims 1-6 and 9-14 under 35 USC 103(a) as being unpatentable over Applicants admitted prior art in view of Dahlman (USPN 6,526,039), and which further rejected claims 7-8 and 15-16 under 35 USC 103(a) as being unpatentable over Applicants admitted prior art in view of Dahlman as applied to claims 1 and 9 and further in view of Papasakellariou (USPN 6,275,483).

Claims 1, 3, 7-11, 13 and 15-16 are amended for format and grammar, and no change is seen as relevant to patentability so no equivalents are seen as sacrificed. Claims 17 and 18 are added, support for which may be found at least at page 8, lines 19-23; page 9, lines 6-10; page 10, lines 1-10; and page 12, lines 13-22. No new matter is added.

The problem addressed by the claimed invention is described in detail at the background section of the application. Specifically, when performing a handover, the distance between a mobile station and a new base station is not known, and therefore the propagation delay is not known (page 2, line 25, to page 3, line 3). Thus, in the Background section, a conventional means to detect propagation delay using a matched filter is described. However, as indicated in the application, a matched filter requires a long search time (page 4, lines 33-34).

Dahlman discloses a method and system for facilitating timing of base stations in an asynchronous CDMA mobile communications system (abstract). In Dahlman, mobile stations measure the relative time differences (RTDs) between various pairs of BSs, and the measurements are stored by the BSs. In Dahlman, these time differences are then used in the handover. (Dahlman, col. 6, lines 3-18). According to Dahlman then, a known delay is used, and no "search strategy" is employed in the sense detailed in the present specification.

Claim 1 recites:

A method comprising: performing synchronization of a mobile network device to a network control device of a present radio network region, further comprising: detecting a source radio network region from which a handover of said mobile network device to said present radio network region has been performed; determining a start propagation delay value based on said detected source radio network region of said mobile station; and searching an actual propagation delay value by using a search strategy based on said determined start propagation delay.

In the Office Action, the Examiner cites Dahlman col. 2, line 33, to col. 3, line 34 as well as col. 4, lines 25-34, and states that Dahlman suggests “searching an actual propagation delay value by using a search strategy based on said determined start propagation delay”. Dahlman describes in those cited sections “a need (that) has arisen for a low-complexity, rapid cell-search procedure for asynchronous CDMA systems,” (col. 2, lines 35-36). Further, in the cited sections of Dahlman is disclosed: “In particular, it would be advantageous to utilize as much a priori search information as possible to help reduce the level of complexity and increase the search rate for cell-searches and to enable simplified mobile positioning solutions,” (col. 4, lines 22-26). Clearly this disclosure, and what it motivates, is that Dahlman uses a known propagation delay. Further, in the cited sections Dahlman does not disclose or suggest “searching an actual propagation delay value by using a search strategy based on said determined start propagation delay,” as claim 1 recites in part.

In claim 1 then, a propagation delay between the mobile station and the base station is actually searched, and this search is performed with a suitable start value, namely by “searching an actual propagation delay value by using a search strategy based on said determined start propagation delay”, which is determined based on a detected source radio network region of the mobile station. This is effected when the mobile station is about to enter a handover.

According to claim 1, the delay value is not known when entering a handover. Since Dahlman does not describe a search strategy, there is no motivation for Dahlman to set some kind of start value for a search strategy. Hence, there is also no motivation to combine the teachings of the background section of the present application with Dahlman.

Even if they were combined, one of ordinary skill in the art would not arrive at the combination asserted in the Office Action because Dahlman does not need to use a start value for a search strategy.

For at least the reasons stated, claim 1 is seen to patentably distinguish over Dahlman alone or in combination with the asserted admitted prior art. Independent claims 9 and 17 recite similar subject matter and are seen to distinguish for the same reasons as detailed above with respect to claim 1.

The Examiner has further rejected claims 7, 8, 15 and 16 as being obvious over Dahlman further in view of Papasakellariou.

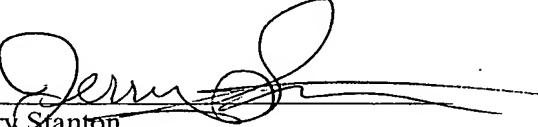
Papasakellariou discloses a method for fast and accurate identification of spread spectrum signals in CDMA systems. In particular, as derivable from the abstract, the basic idea of Papasakellariou is to search a base station using the same spreading sequence but in a different code phase. Thus, according to Papasakellariou the arrival time of each path from a specific base station is identified by selecting specific code offsets (col. 5, lines 47-53). Papasakellariou provides a method for fast acquisition of the BS pilot, and the BS does not gather information on the delays where the handover took place. Clearly, the idea underlying Papasakellariou is not related to the present application. At the sections cited by the Examiner, Papasakellariou discloses "The method to search the uncertainty area, which is sometimes referred to herein as the "search area", can be based on any conventional approach, such as serial search, Z-search, and expanded window search," (col. 5, lines 31-34). The applicant contends that although a Z-search and expanding window search is mentioned in the cited reference, there is no motivation to use the search strategies in the specific context of the present application. Papasakellariou searches for spreading code offsets; the claims recite propagation delay values. Dependent claims 7-8 and 15-16 are seen to patentably distinguish over the asserted combination even apart from the independent claims from which they depend.

All other claims not specifically argued above depend from either of claims 1, 9 or 17, and should be allowable at least for that dependency.

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In view of the remarks above, all claims are now seen to patentably distinguish over the cited art, alone or in any combination. The Applicants respectfully requests that the Examiner pass pending claims 1-18 to issue. The undersigned representative welcomes the opportunity to resolve any matters that may remain, formal or otherwise, via teleconference at the Examiner's discretion.

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